

CLAIMS

1. A method of producing a poly-3-hydroxyalkanoic acid,
5 which comprises carrying out a physical disruption treatment of a suspension of poly-3-hydroxyalkanoic acid-containing microbial cells with adding an alkali thereto either continuously or intermittently and, thereafter, separating the poly-3-hydroxyalkanoic acid.
10
2. The method according to Claim 1,
wherein said addition of an alkali is carried out with controlling the pH of the suspension.
- 15 3. The method according to Claim 2,
wherein the pH of the suspension is controlled between 9 and 13.5.
- 20 4. The method according to any one of Claims 1 to 3,
wherein said physical disruption treatment is carried out under stirring of said suspension.
- 25 5. The method according to any one of Claims 1 to 4,
wherein said physical disruption treatment is carried out at the temperature not less than 20°C and below 40°C.
- 30 6. The method according to any one of Claims 1 to 5,
wherein the poly-3-hydroxyalkanoic acid is a copolymer comprising of D-3-hydroxyhexanoate (3HH) and one or more other 3-hydroxyalkanoic acids.
- 35 7. The method according to Claim 6,
wherein the poly-3-hydroxyalkanoic acid is a binary copolymer comprising of D-3-hydroxybutyrate (3HB) and D-3-hydroxyhexanoate (3HH) or a ternary copolymer comprising of

D-3-hydroxybutyrate (3HB), D-3-hydroxyvalerate (3HV), and D-3-hydroxyhexanoate (3HH).

8. The method according to any one of Claims 1 to 7,
5 wherein the poly-3-hydroxyalkanoic acid-containing microbial cells are cells of Aeromonas caviae.

9. The method according to any one of Claims 1 to 8,
10 wherein the poly-3-hydroxyalkanoic acid-containing microbial cells are cells of a strain of microorganism transformed by a poly-3-hydroxyalkanoic acid synthase group gene derived from Aeromonas caviae.

15

20

25

30

35